



Getting Started with Drupal 8 Module Development

DrupalCamp London 2016

Who am I?

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Symfony2 hobbyist



What are we going to cover?

Where Drupal 8 modules are located, and how they are structured.

How to build a simple module, including our own permissions and routes.

How to add your own controller and service classes.

What is the service/dependency injection container, and how do we use it?

How we can use tools such as PhpStorm and Drupal Console to speed up the process.

Module location

Modules live in the **modules** directory

modules/contrib and **modules/custom** still works

Module Structure

`example.info.yml`

`example.module`

`example.permissions.yml`

`example.routing.yml`

`src/Controller/ExampleController.php`

What's New

YAML replaces the INI format

.module file is not always needed

Permissions and routes in separate files

src directory to hold PHP classes

No more .inc files

Namespaces / PSR-4 autoloading

YAML

“YAML Ain’t Markup Language”

Simple key-value pairs

Indentation matters

Must be spaces!

system.permissions.yml

```
administer modules:
```

```
  title: 'Administer modules'
```

```
administer site configuration:
```

```
  title: 'Administer site configuration'
```


node.permissions.yml

permission_callbacks:

- \Drupal\node\NodePermissions::nodeTypePermissions

Namespaces

```
namespace Drupal\node;
```

```
namespace Drupal\node\Controller;
```

```
namespace Drupal\node_override_options;
```

Autoloading

Provided by Composer

Replaces the `file[]` syntax

One class per file

The filename must match the name of the class

The namespace must reflect the directory structure

```
Drupal\node\Controller == core/modules/node/src/Controller
```

Routing

No more `hook_menu()`

Uses the Symfony Routing component

Defined in YAML

system.routing.yml

```
system.admin:
```

```
  path: '/admin'
```

```
  defaults:
```

```
    _controller: '\Drupal\system\Controller\SystemController::  
systemAdminMenuBlockPage'
```

```
    _title: 'Administration'
```

system.routing.yml

```
requirements:
```

```
  _permission: 'access administration pages'
```

path.routing.yml

```
path.delete:
```

```
  path: '/admin/config/search/path/delete/{pid}'
```

```
  defaults:
```

```
    _form: '\Drupal\path\Form\DeleteForm'
```

```
    _title: 'Delete alias'
```

```
  requirements:
```

```
    _permission: 'administer url aliases'
```

Underscores?

Underscores are specified for everything which are not parameters to the controller. This is coming as a sort of "standard" from symfony.

These parameters are upcasted via the param converter and passed to the controller using the controller resolver

Daniel Wehner - <http://drupal.stackexchange.com/a/89921>

Creating Your Own Module

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Creating Your Own Module

Create a directory within modules or modules/custom

Add a {modulename}.info.yml file

Add {modulename}.module, {modulename}.routing.yml and {modulename}.permission.yml if needed



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Speakers

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Changing to a Service

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The Service Container

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What is the Service Container?

Added by the `DependencyInjection` component

It's an object that contains other objects and instructions on how to create them

Centralised place to create all services

Makes them reusable

They are only instantiated when needed

Only one instance is ever instantiated of each class

Adding Our Service Class to the Container

Add `{mymodule}.services.yml`

Extend `ControllerBase`

Add `create()` method, and return a new static class with the required parameters with `$container`

Add properties and inject the values in `__construct()`

Use `$this->{serviceName}->{methodName}()`


```
private $greeter;
```

```
private $logger;
```

```
public function __construct(GreeterInterface $greeter,  
LoggerChannelFactoryInterface $logger) {
```

```
    $this->greeter = $greeter;
```

```
    $this->logger = $logger;
```

```
}
```


Service Parameters

Service Parameters

Added to {modulename}.services.yml

Added to `__construct()` as an argument, and assigned to a property

Available via `$this`



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Speakers

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Configuration

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Configuration

Lives in a config directory

Defined in YAML

`config/install/*` is added when the module is installed

`config/schema/*` defines the structure of your configuration

`config/optional/*` are for additional modules

Generating Forms

Add a new route

Add a new controller extending `ConfigFormBase`

Add `getFormId` and `getEditableConfigNames` methods

Add `buildForm` and `submitForm` methods, and use `$this->config()->set()->save()`;

Useful Tools

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PhpStorm

Auto-completion

Auto-import classes

Symfony plugin/Drupal bridge

Drupal Console

CLI tool

Generates code

Interacts with your site - e.g. `router:rebuild`, `cache:rebuild`

`drupalconsole.com`

The background consists of several overlapping geometric shapes in shades of teal and light blue. A large teal shape covers most of the left and top areas, while a light blue shape is on the right. The word "Questions?" is centered in white text.

Questions?

Feedback

@opdavies

<https://www.oliverdavies.uk/talks/getting-started-with-drupal-8-module-development>